IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/228,445
Filed: January 11, 1999
Inventors:
William W. Freitag Jr., et al.

Title: System and Method for Digital Communication via a Time Division Multiplexed Serial Data Stream

Examiner: Nguyen, Phuongchau
Group/Art Unit: 2665
Atty. Dkt. No: 5000-74400

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Robert C. Kowert
Name of Registered Representative

Signature

August 18, 2005
Date

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated below.

Applicants are not yet in receipt of an Advisory Action in response to Applicants' Response to Final Action of May 18, 2005 (Applicants' Response mailed July 12, 2005). Claims 1-16 remain pending in the application. Reconsideration of the present case is earnestly requested in light of the following remarks. Please note that for brevity, only the primary arguments mainly directed to the independent claims are presented. Additional arguments, e.g., directed to the subject matter of the dependent claims, will be presented if and when the case proceeds to Appeal.

Claim 11 is rejected under 35 U.S.C. § 102(e) as being anticipated by Chiu et al. (U.S. Patent No. 6,327,259, hereinafter "Chiu"). Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rowett et al. (U.S. Patent No. 5,991,817, hereinafter "Rowett") in

view of Chiu. Claims 14-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kurnick et al. (U.S. Patent No. 5,721,726, hereinafter "Kurnick") in view of Chiu. Claims 6-10 are allowed. Claims 3-5 and 12-13 are objected to as depending from a rejected base claim, but would be allowable if rewritten in independent form. The following clear errors in the Examiner's rejection are noted.

Regarding claim 1, neither Rowett nor Chiu individually or collectively teach or suggest all of the limitations of Applicants' claim. The Examiner notes that Rowett does not disclose the details of Applicants' claim 1 pertaining to: a plurality of functional units configured to operate in series according to a serial communication protocol, wherein each functional unit is configured to perform a different specific function of the serial communication protocol, and wherein the plurality of functional units operates in time sequence upon the portions of the multiple serial data channels, and wherein the plurality of functional units is configured to perform the serial communication protocol on the multiple serial data channels. The Examiner relies on Chiu to teach these limitations.

However, Chiu (either alone or in combination with Rowett) does not teach or suggest a plurality of functional units, each configured to perform a different specific function of a serial communication protocol, wherein the plurality of functional units is configured to perform the serial communication protocol <u>on multiple serial data channels having portions which alternate in time with respect to each other</u>, as recited in claim 1. Instead, Chiu discloses providing <u>individual</u> HDLC controllers, each of which is configured to perform protocol processing associated with a <u>single</u> communications channel. In FIG. 3, Chiu illustrates HDLC A 200, HDLC B 202, and HDLC C 204 each configured to process a single channel (D, B2 and B1, respectively). Respectively, TSAA 208, TSAB 210 and TSAC 212 control the clock enables to each HDLC such that a given HDLC transmits or receives on its channel only when its clock is enabled (Chiu, col. 5, lines 32-57 and col. 9, lines 48-57). Otherwise the HDLC is idle (Chiu, col. 9, lines 10-13). Chiu neither teaches nor suggests that at any time a given HDLC (or any functional unit within a given HDLC) processes any channel other than the one it was previously assigned (such as by execution unit 124).

In the "Response to Arguments" section of the Final Action, the Examiner refers to the plurality of units 512-518 illustrated in FIG. 7 of Chiu, asserting that these units perform various HDLC protocol processing functions on portions of multiple serial (HDLC) data channels. The

Examiner's interpretation of Chiu is clearly incorrect. The elements illustrated in Chiu's FIG. 7 comprise transmitter 506, a single instance of which resides within a given HDLC controller, HDLC A 200 as illustrated in FIG. 6. However, as noted above, Chiu teaches that at any given time, an HDLC controller corresponds to only a single communication channel. That is, HDLC A 200 corresponds to an ISDN D channel, HDLC B 202 corresponds to an ISDN B2 channel, HDLC C 204 corresponds to an ISDN B1 channel, and HDLC 206 corresponds to a PCM highway. Because the elements of FIG. 7 to which the Examiner refers reside within a single given HDLC controller, and a given controller corresponds to a single channel, it is impossible that the units 512-518 within a single HDLC of Chiu process portions of multiple serial data channels, as required by claim 1. Rather, Chiu provides separate and distinct units that process **only their respective communication channels**. Nowhere does Chiu suggest that the processing performed by the units 512-518 HDLC A 200 on the D channel data has anything to do with the processing performed by similar units of HDLC B 202 on the B2 channel data. **Chiu clearly teaches that its channel processing is segregated within separate units associated with separate channels.**

Chiu's description of the operation of HDLC controllers 200-206 further illustrates this distinction. As noted above, the transmission and receive operation of a given HDLC controller of Chiu is controlled by corresponding transmit and receive clock enable signals. According to Chiu, a given HDLC controller is only enabled during a time slot when its corresponding channel is active (col. 7, line 61 – col. 8, line 3). Correspondingly, if a channel is not active, its corresponding HDLC controller is not performing communication protocol functions on a different channel. Rather, the controller and its functional units are idle and waiting for the corresponding channel to become active again. That is, **at any given time, an HDLC of Chiu is either operating to transmit or receive on a single data channel or is idle.** Thus, Rowett in view of Chiu clearly fails to teach or suggest that a plurality of functional units perform specific functions of a serial communications protocol on multiple serial data channels as recited in claim 1.

For at least the reasons given above, Applicants submit that the rejection of claim 1 is unsupported by the cited art.

As argued in Applicants' Response to Final Action of May 18, 2005 at pp. 2-6 and 7-8, the rejection of independent claims 11 and 14 as well as claims 15-16 is also clearly unsupported

by the cited art. In a telephone conference between Examiner Nguyen and the undersigned attorney on August 17, 2005, the Examiner indicated that the rejection of claims 11 and 14-16 would be withdrawn in an Advisory Action yet to be mailed.

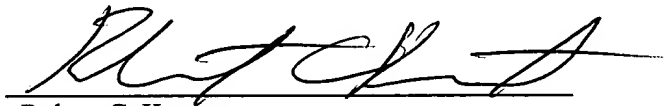
In light of the foregoing remarks, Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested. If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicant hereby petitions for such an extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 501505/5000-74400/RCK.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☒ Notice of Appeal

Respectfully submitted,



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